# Pediatric Patient Care Review

2LT Amber A. Burg

May 2000

# Patient Information

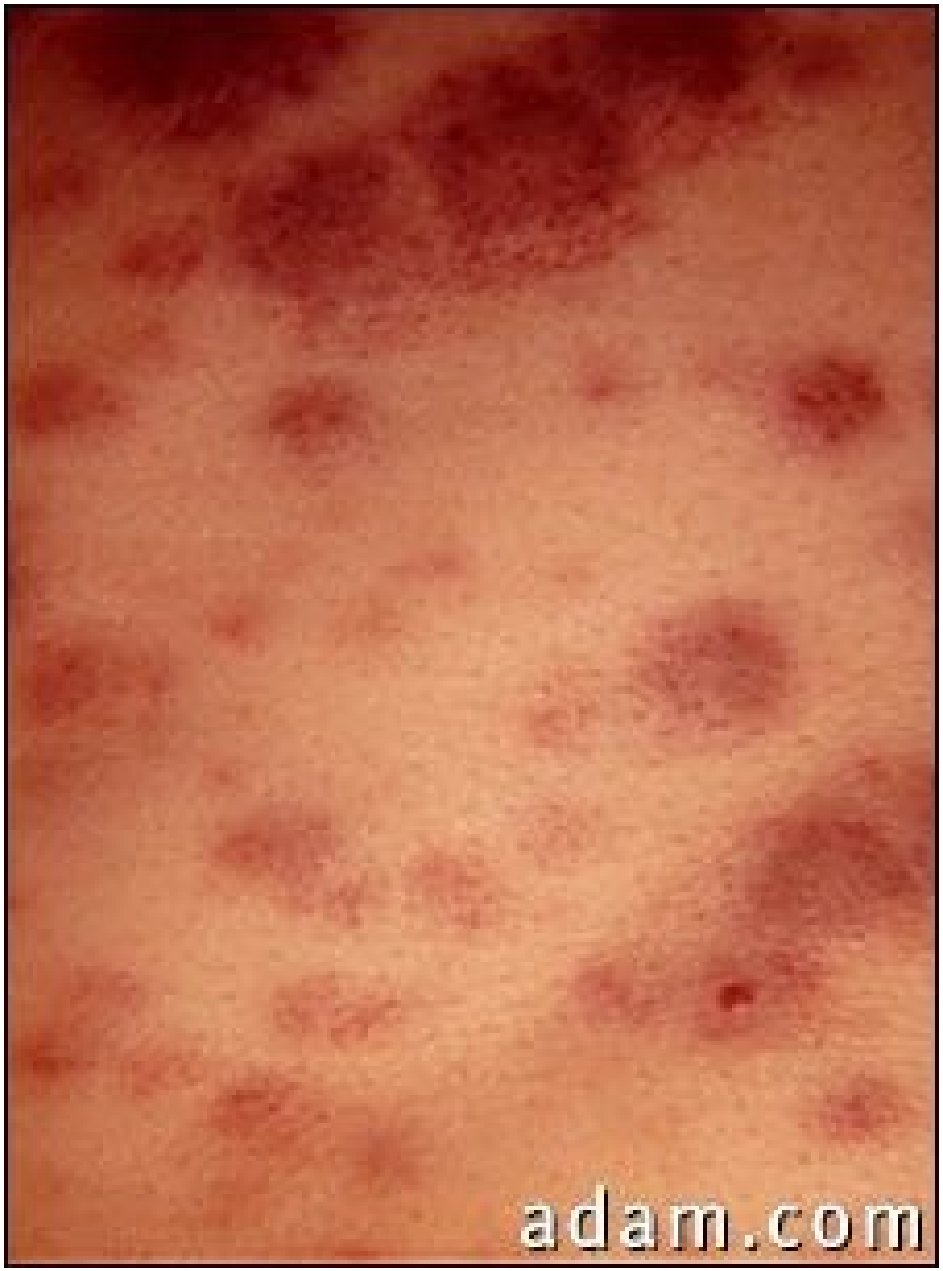
- Identification:  MC
- Age:  21 days old
- Race: White
- Gender:  Female
- Date of Admission:  22 May 2000
- Diagnosis:  acute monocytic leukemia
- WRAMC Care Plan: Cancer/Chemotherapy

# Acute Monocytic Leukemia

- Definition of leukemia
- Classified as acute or chronic
- Acute is further classified into myelogenous or lymphoblastic
- Myelogenous types are categorized M1-M7
- Acute monocytic leukemia is M5
- Cause is unknown

# Symptoms

- Fatigue
- Weakness
- Paleness
- Bleeding
- Fever and infection
- Bone pain
- Skin rash or lesion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# Treatment

- Primary treatment is chemotherapy.
  - Induction
  - Consolidation
- Bone marrow transplant
- Radiation therapy
- Prognosis: For AMoL, there is a 10% chance of survival.

# Nutritional Implications

- Side effects of chemo: nausea, vomiting, diarrhea, anorexia, etc.
- Effects of chemotherapy increase metabolic demands (increased calorie, protein and fluid needs) and alter electrolyte balance.
- Neutropenic diet may be necessary during later stages of chemotherapy.

# Tumor Lysis Syndrome

- Caused by the rapid destruction of cancer cells
- Results in the release of cellular breakdown products such as uric acid, potassium, and phosphorous
- Symptoms
- Prevention/Treatment

# Pt's Medical Tx

- Family history:  Lives with mom, dad, and two healthy older siblings in Germany
- Past medical history:
  - Purplish lesions present on body since birth
  - At two week check-up tests run and diagnosis made
  - Pt. transferred to WRAMC for further care

# Nutrition History

- Pt was on Enfamil at home and upon admission to WRAMC.
- Formula changed to Similac PM 60/40 because of its low phos content.
- Current diet order is po ad lib on demand.
- Pt was eating well upon admission, but since problems with catheter on 24 May, po intake has decreased.
- Pt is also receiving additional calories from D5 IV solution.

# Anthropometrics

- Length:  51.8 cm
- Weight: 3.64 kg
- Percentile ht/age:  50th
- Percentile wt/age:  50th
- Percentile wt/ht:  50th

# Medications

- Allopurinol – given to keep uric acid levels down
  - Side effects:  N/V/D, gastritis, abdominal pain
- Amphojel – phosphate binder
  - Side effects:  constipation, decreased absorption of folate and iron
- Ara-C – chemo medication
  - Side effects:  N/V/D, stomatitis, esophagitis, anorexia, decreased weight

# Labs

- Cl:  109 mEq/L  (96-106 mEq/L)
- BUN:  2 mg/dL  (5-25 mg/dL)
- LDH:  4225 U/L  (160-1500 U/L)
- Alb:  2.3 mg/dL  (3.6-5.4 mg/dL)
- Hgb:  6.5 g/dL  (14.5-22.5 g/dL)
- Hct:  19.2%  (44-72%)

# Nutritional Diagnostic Statement

- Pt is currently at nutritional risk due to disease, induction chemotherapy with associated side effects, and probable inadequate po intake, even though current anthropometrics reveal normal acute nutrition status.

# Nutritional Needs

- Calorie needs:  120 kcal/kg/d (RDA for healthy newborn is 108 kcal/kg/d)
- Protein needs:  2.5 – 3.5 g/kg/d (RDA is 2.2 g/kg/d)
- Fluid needs:  minimum of 1.5 x maintenance (may need more per chemo protocol)

# MNT Care Plan

- Goal of Therapy:  To provide adequate calories, protein and nutrients for normal growth (long-term).  Now, the goal is to manage day-to-day nutrition status.
- Plan:  Continue to follow daily weights, nutrition intake and labs to ensure pt's needs are being met and check for any further problems.

# Outcomes of Care

- Potential Health Outcomes:
  - Appropriate growth, better response to chemo, enhanced quality of life, maintain nutrition status
- Potential Resources Saved:
  - Shorter hospitalization, decreased number of readmissions

# QUESTIONS???